

Europäisches Patentamt

European Patent Office

Office européen des brevets



EP 1 091 506 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: 16.05.2001 Bulletin 2001/20

(51) Int. Ci.⁷: **H04B 7/185**

(11)

- (43) Date of publication A2: 11.04.2001 Bulletin 2001/15
- (21) Application number: 00810686.6
- (22) Date of filing: 31.07.2000
- (84) Designated Contracting States:

 AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU

 MC NL PT SE

 Designated Extension States:

 AL LT LV MK RO SI
- (30) Priority: 01.10.1999 EP 99810890
- (71) Applicant: Ascom Systec AG 5506 Mägenwil (CH)

- (72) Inventor: Widmer, Hanspeter 5507 Mellingen (CH)
- (74) Representative:
 Roshardt, Werner Alfred, Dipl.-Phys. et al
 Keller & Partner
 Patentanwälte AG
 Schmiedenplatz 5
 Postfach
 3000 Bern 7 (CH)
- (54) A hybrid CDMA and TDMA radio access scheme for personal satellite communication systems
- (57) To accomplish the object of high user capacity and high power efficiency, the invention is characterized in that the base station transmits control information in the forward link to each of the at least one user terminals for enabling the user terminal to transmit its signals in the return link in a mode to reach signal arrival at the base station that is quasi-synchronous with respect to the time and frequency reference in the base station.

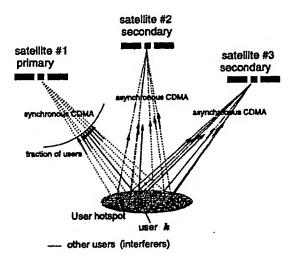


Fig. 9-1



EUROPEAN SEARCH REPORT

Application Number EP 00 81 0686

Category	Citation of document with indica		Relevant to daim	CLASSIFICATION OF THE APPLICATION (Int.C1.7)	
X	Televant passage EP 0 845 874 A (TRW II 3 June 1998 (1998-06-1) * abstract; figures 1 * column 2, line 54 - * column 6, line 46 - * column 7, line 17 - * column 8, line 10 - * column 19, line 21	NC) 03) ,3-5 * column 3, line 32 * column 7, line 8 * line 53 * column 12, line 6 *	1,2,6-8 22-25,3	H04B7/185	
X	US 5 659 545 A (GREGG 19 August 1997 (1997- * abstract; figures 1 * column 11, line 55 * column 12, line 46 * column 13, line 11 * column 14, line 9 -	08-19) ,4-7 * - line 60 * - line 50 * - line 16 * line 13 *	1,2,4-9 22,23, 30,33		
A	* column 14, line 48 * column 2, line 62 - * column 4, line 3 - * column 4, line 31 -	column 3, line 20 * line 9 *	11,16,2	TECHNICAL FIELDS SEARCHED (Int.Cl.7)	
X A	US 5 936 570 A (GHAZV 10 August 1999 (1999- * column 1, line 59 - * column 16, line 1 - figures 2,22-25 * * column 16, line 59 * column 17, line 11	08-10) column 2, line 4 * column 19, line 5; - column 17, line 1	23,33	H04B	
Υ	US 5 257 415 A (ENDO 26 October 1993 (1993 * abstract; figures 1 * column 1, line 7 - * column 4, line 15 -	-10-26) ,3,4 * column 1, line 27 *	34		
	The present search report has bee				
	Place of search MIINTCH	Date of completion of the search 13 March 2001	42	Examine: APOPT R	
MUNICH 13 CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure		T : theory or princ E : earlier patent : after the filing D : document cite L : document cite	arch 2001 Staeger, R T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons		



EUROPEAN SEARCH REPORT

Application Number EP 00 81 0686

Category	Citation of document with in of relevant pass	idication, where appropriate, ages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)		
Y	US 4 644 565 A (SEO 17 February 1987 (1 * column 1, line 5 * column 2, line 59	987-02-17) - line 32 *	34			
Y	US 4 689 625 A (BAR 25 August 1987 (198 * abstract; figures * column 1, line 6 * column 3, line 9 * column 6, line 42	7-08-25) 1,4 * - line 59 *	34			
Y		6-05) - column 2, line 22 * - column 4, line 23 *	34			
Y	US 4 462 001 A (GIR 24 July 1984 (1984- * column 1, line 7		34	TECHNICAL FIELDS SEARCHED (Int.CI.7)		
Υ	EP 0 306 918 A (NIP 15 March 1989 (1989 * abstract; figures * column 1, line 36 * column 5, line 1	-03-15) 4,5 *	34			
	The present search report has					
	Place of search MUNICH	Date of completion of the search 13 March 2001	C+ s	Examiner eger, R		
X : pari Y · pari doc	ATEGORY OF CITED DOCUMENTS licularly relevant if taken alone licularly relevant if combined with anotument of the same category	T : theory or princi E : earlier patent o after the filing her D : document cite L : document cited	iple underlying the tocument, but publicate d in the application of for other reasons	invention ished on, or		
A : technological background O : non-written disclosure P : intermediate document			*: member of the same patent family, corresponding document			

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 00 81 0686

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

13-03-2001

	Patent document and in search repo		Publication date		Patent family member(s)	Publication date
EP	0845874	A	03-06-1998	US CA JP JP	5844521 A 2222488 A 2931574 B 10229578 A	01-12-1990 02-06-1990 09-08-1990 25-08-1990
us	5659545	A	19-08-1997	NONE		, _
US	5936570	A	10-08-1999	AU EP WO US	3450199 A 1060577 A 9945659 A 6127967 A	20-09-1999 20-12-2000 10-09-1999 03-10-2000
US	5257415	Α,	26-10-1993	JP JP	4291832 A 4292024 A	15-10-199 16-10-199
US	4644565	Α	17-02-1987	CA	1265851 A	13-02-199
US	4689625	Α	25-08-1987	NONE		
US	4453257	Α	05-06-1984	CA	1182875 A	19-02-198
US	4462001	Α	24-07-1984	CA	1184980 A	02-04-198
EP	0306918	A	15-03-1989	JP JP JP AU AU CA DE US	1071329 A 1842421 C 5053412 B 604206 B 2194488 A 1291584 A 3882464 A 4901310 A	16-03-198 12-05-199 10-08-199 06-12-199 16-03-198 29-10-199 26-08-199